

Table 1: Primers for SNP genotyping of CD81 SNPs with FP-TDI method

gene/rs	allele	PCR primer name	PCR Primer 1, 2	SNP primer name	SNP Primer 3, 4
rs800146	R	O1657	GAGCGGATTGTGTAACCTCTG		
	A/G	O1658	AGGAAGATCTACCTCACTTG	O1690	TGACTGTGGACATCGGAACTC
rs2521240	R	O1661	CAGTGTTCCTACCTGGCTTGTG	O1693	TGGCTTGTGGTTGAGGGG
	A/G	O1662	CATTCCAGTGTAGCACTCCT		
rs800158	R	O1665	TGTGTAACGTGTATTGGAAAA		
	A/G	O1666	CTGAGTGTCTGTTCCTCACTTA	O1698	AGCCAGTGTCCAAATCGTCC
rs800163	Y	O1669	GATGAAGGGATATCCAGAGAG	O1701	TGGGCTGAATAAGGAAGATCTGTC
	C/T	O1670	ACCAGGAGTCTGTATGCTAAG		
rs800136	Y	O1244	CTGATCATAGGGGAAGAACTATC	O1276	TCCCTTCTATTTCTAGTGAGTTCAGTG
	C/T	O1245	AAAAGCAACCAAGTAATAAAT		
rs800137	Y	O1246	AGAAAGGTCTCTCTGTCAAAACAT	O1278	CCAAAATGCTGGGAGATGGCA
	C/T	O1247	TCTTCTCTCCCTGTGTGTA		
rs1164688	S	O1252	ATTGTGTAATCGTGTATTCAGTG		
	C/G	O1253	AGTTATGTGTGCCAAGGTTAAG	O1285	GTACAGTAAATCAGGACAACCTTGAAGAG
rs2651842	R	O1256	GAGGTGACAATGGATATCTG		
	A/G	O1257	AGACAGCAAGAGTGTGAGTGT	O1288	TGTGTGAAGGTGGGAGTGTG
rs800334	K	O1264	CTAAACCAAGAGTGTGAAATTTGA		
	G/T	O1265	AGACCTGTCTCAAAAATAAAAT	O1296	ACCTTCTCCACACACCCGA
rs2522012	K	O1268	TGGCTAGAGTTGATTGTGTG	O1299	CGCTGGCCCGCTTCT
	G/T	O1269	GAGAGGGTAGGATTGTGTTAC		
rs2522013	M	O1270	TGGCTAGAGTTGATTGTGTG		
	A/C	O1271	GAGAGGGTAGGATTGTGTTAC	O1301	CTGGGGGAAGGGGGCGC
rs800335	Y	O1272	TGGCTAGAGTTGATTGTGTG		
	C/T	O1273	GAGAGGGTAGGATTGTGTTAC	O1303	GGGACTTGGAGGAAGGAC
rs800343	R	O1679	CTGGTTGTGGATGTGTTAA		
	A/G	O1680	GAAGAAATGTTCTTGACTTGAGTG	O1712	GGGTTTAATCACAGGCATTAGTGCTG
rs800344	R	O1681	CTGGTTGTGGATGTGTTAA		
	A/G	O1682	GAAGAAATGTTCTTGACTTGAGTG	O1714	TGGAAAGGTGGCGGGAATTACT
rs753136	Y	O1685	CAAAGTGACGTGGAAGAAC	O1717	CCCAGCCCTACAGGTGCAC
	C/T	O1686	TTCACCTCCCTCACAGAAGAC		

Fig. 1

rs800136

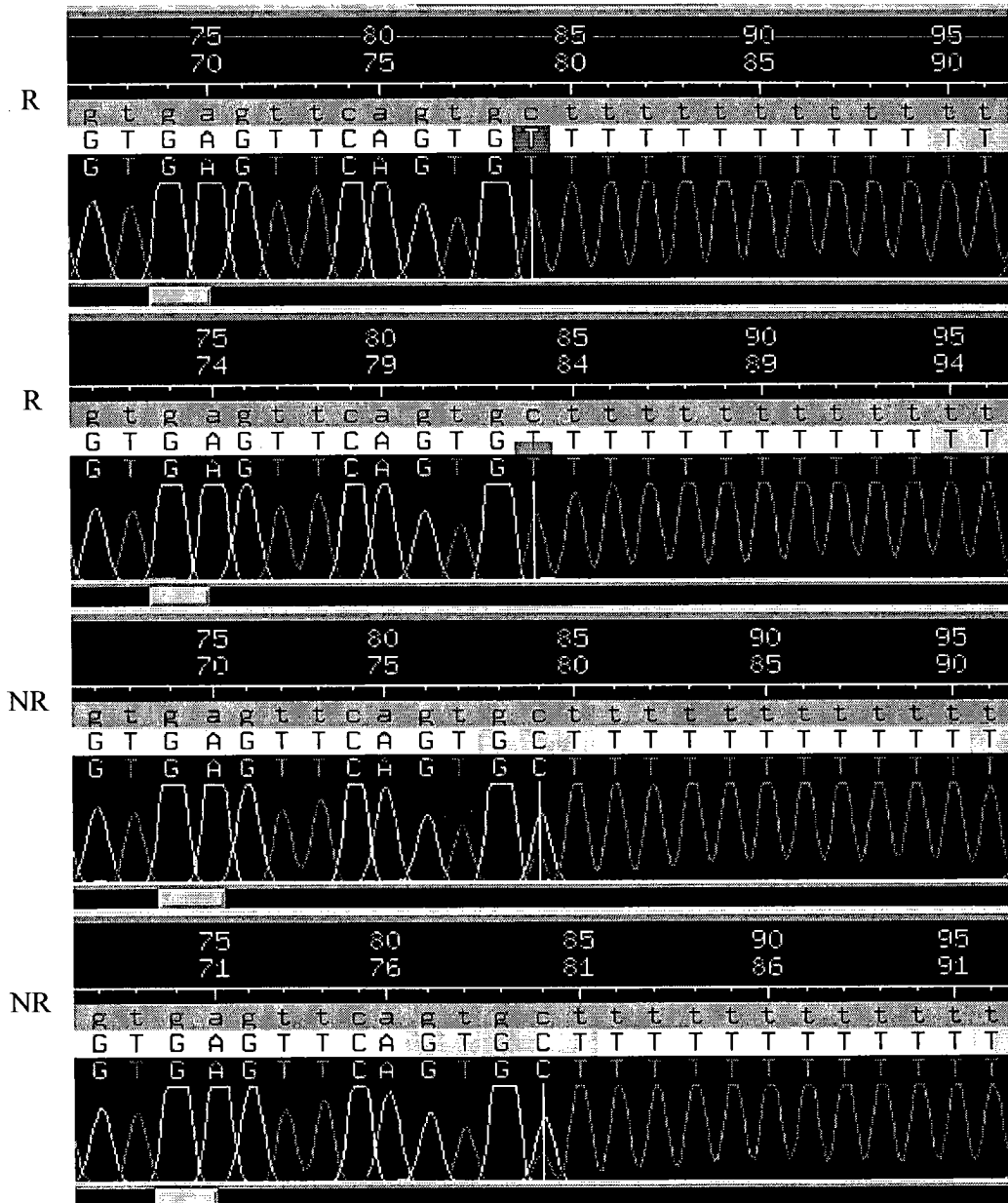


Fig. 2

rs800137

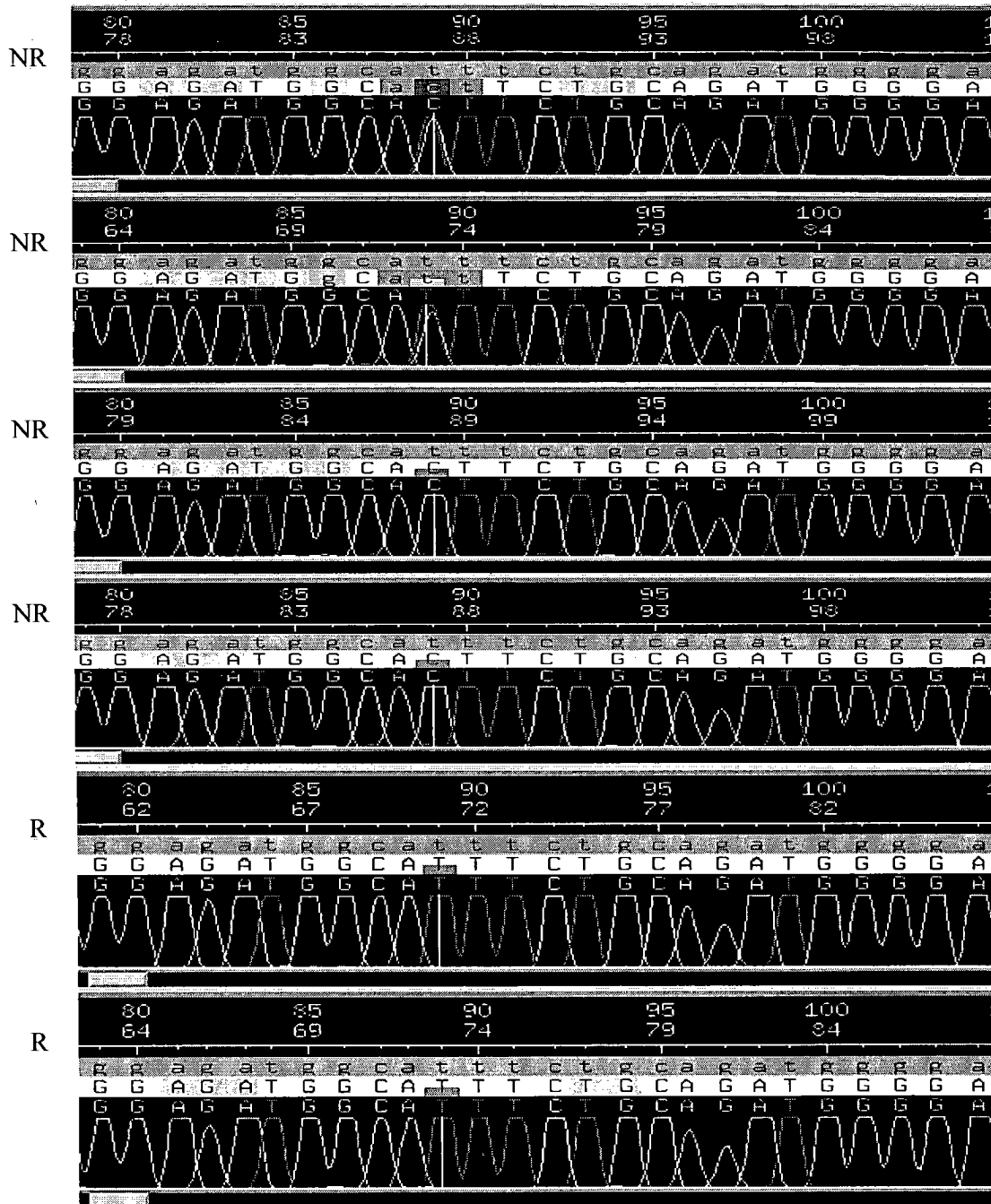


Fig. 3

rs800334

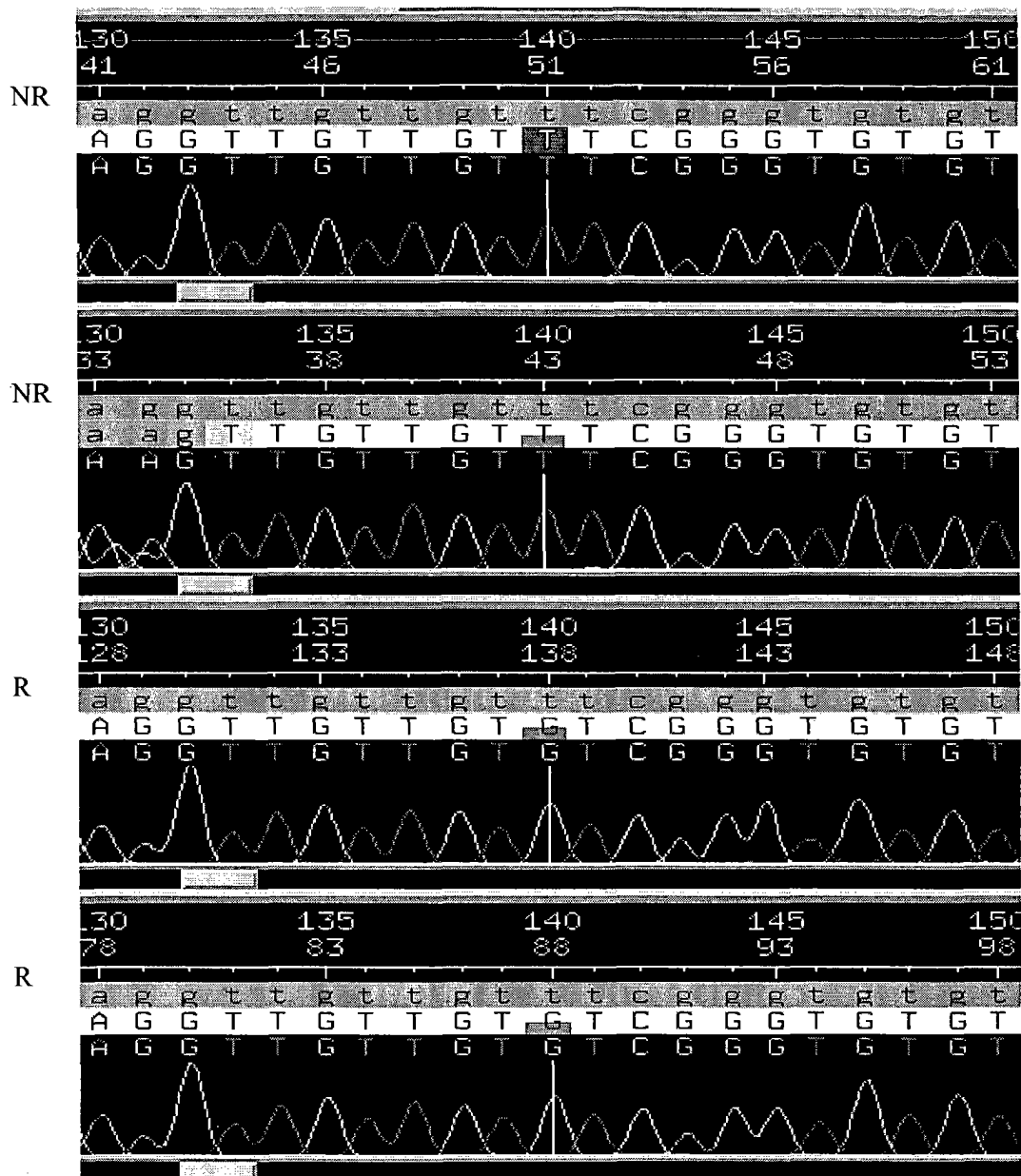


Fig. 4

Chromosome position 1989603

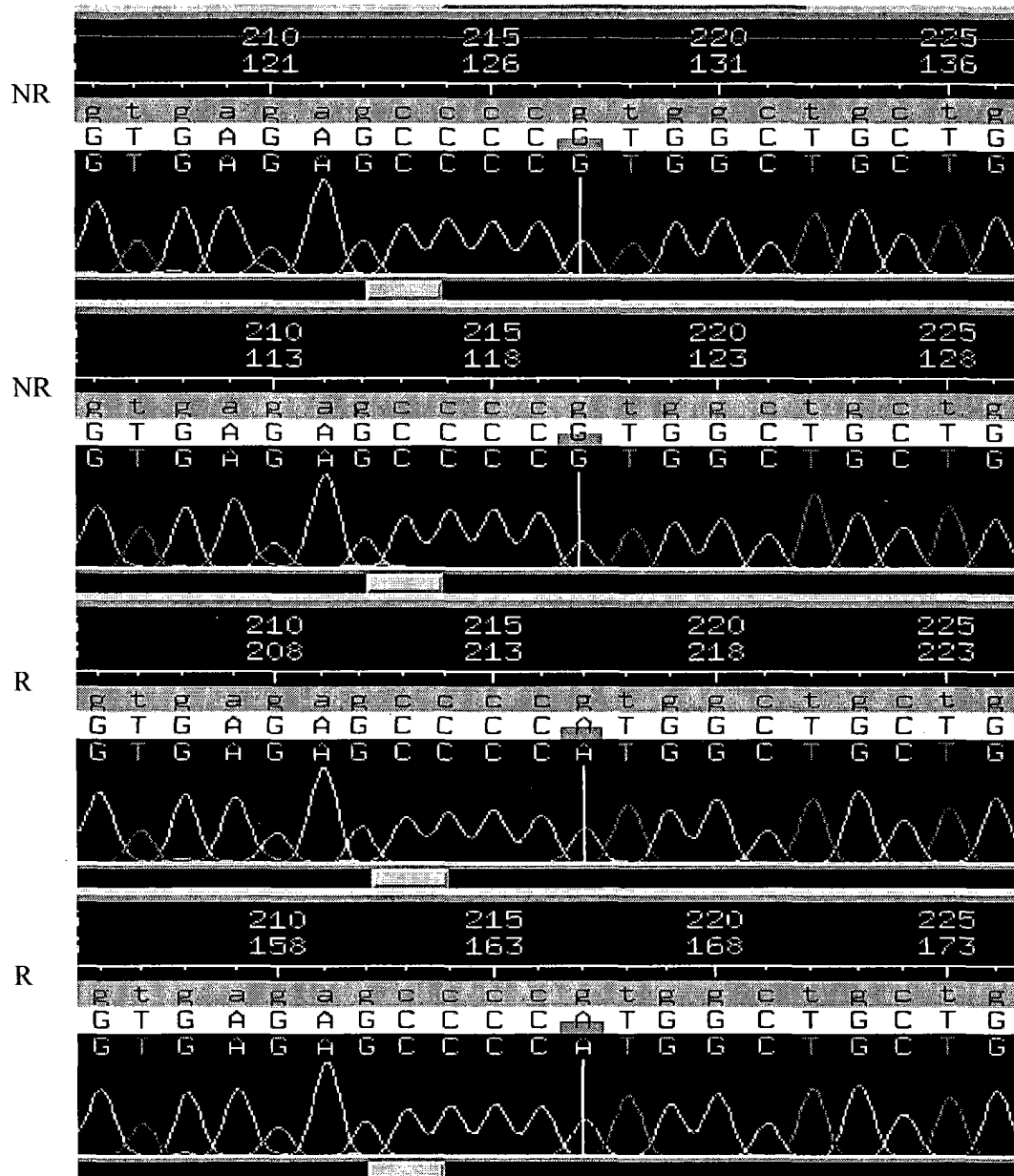


Fig. 5

rs2522012, rs2522013

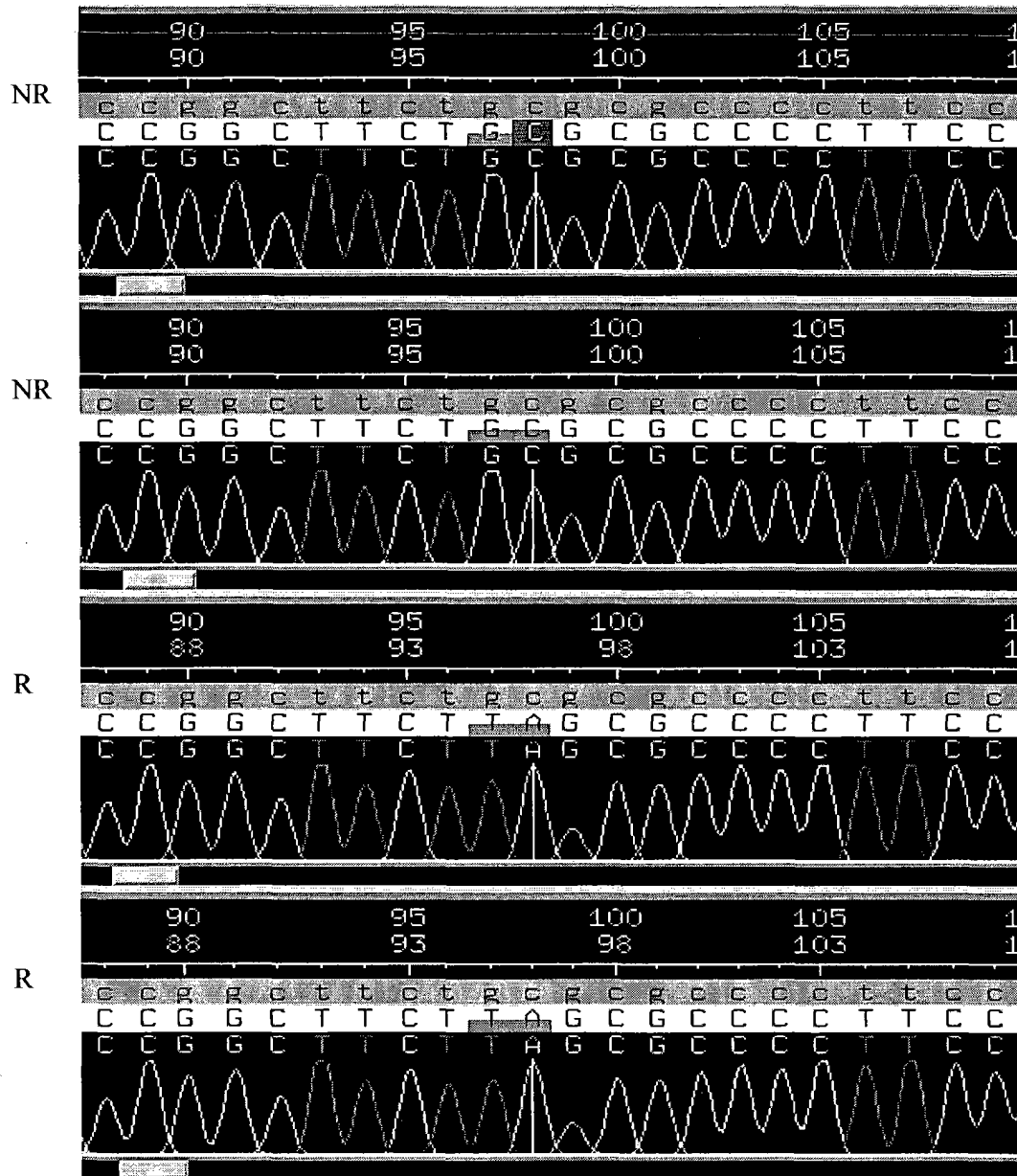


Fig. 6

rs800335

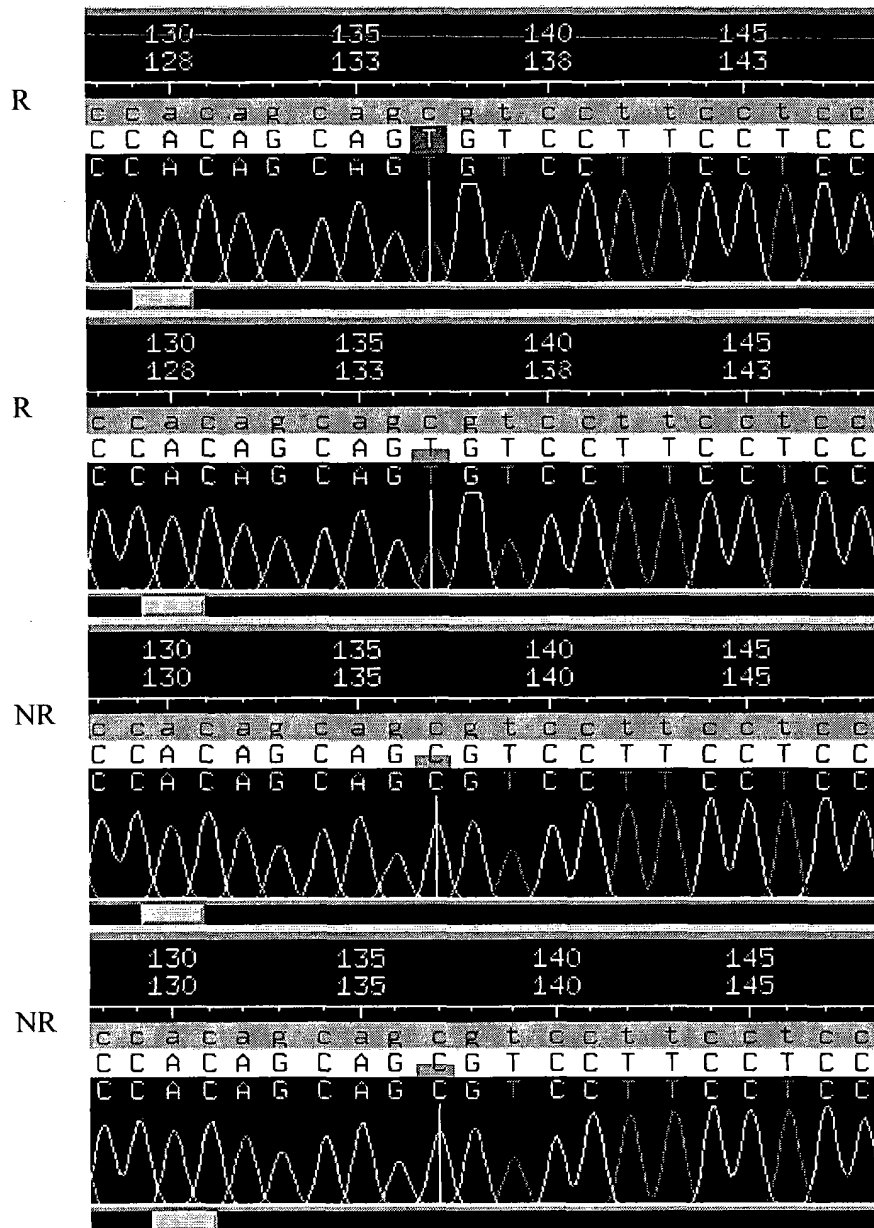


Fig. 7

Table 2: Distribution of CD81 SNPs in Chinese HCV infected patients

SNP	Location in CD81 genome	rs #	Nucleotide substitution	Allelic frequency	Genotype frequency
1	1949368	rs800146	G/A	G=64.3%, A=35.7%	GG=40.7%, GA=47.3%, AA=12.0%
2	1953512	rs2521240	G/A	G=74.0%, A=26.0%	GG=55.4%, GA=37.0%, AA=7.6%
3	1958563	rs800158	G/A	G=38.0%, A=62.0%	GG=15.2%, GA=45.7%, AA=39.1%
4	1963385	rs800163	C/T	C=39.1%, T=60.9%	CC=16.3%, CT=45.7%, TT=38.0%
5	1975622	rs800136	C/T	C=54.3%, T=45.7%	CC=29.3%, CT=50.0%, TT=20.7%
6	1976158	rs800137	C/T	C=54.3%, T=45.7%	CC=29.3%, CT=50.0%, TT=20.7%
7	1978278	rs1164688	G/C	G=65.8%, C=34.2%	GG=43.5%, GC=44.5%, CC=12.0%
8	1982077	rs2651842	G/A	G=47.8%, A=52.2%	GG=22.8%, GA=50%, AA=27.2%
9	1989526	rs800334	G/T	G=47.7%, T=52.3%	GG=23.3%, GT=48.8%, TT=27.9%
10	1989603		G/A	G=54.1%, A=45.9%	GG=29.1%, GA=50.0%, AA=20.9%
11	1991149		G/A	G=98.9%, A=1.1%	GG=98.9%, GA=0.0%, AA=1.1%
12	1991241		C/T	C=0.5%, T=99.5%	CC=0%, CT=1.1%, TT=98.9%
13	1991254	rs2522012	G/T	G=54.9%, A=45.1%	GG=30.4%, GA=48.9%, AA=20.7%
14	1991255	rs2522013	C/A	C=54.9%, A=45.1%	CC=30.4%, CA=48.9%, AA=20.7%
15	1991294	rs80035	C/T	C=54.9%, T=45.1%	CC=30.4%, CT=48.9%, TT=20.7%
16	191310		I/N	I=2.2%, N=97.8%	II=1.1%, IN=2.2%, NN=96.7%
17	2009970	rs800343	G/A	G=60.4%, A=39.6%	GG=60.4%, GA=0.0%, AA=39.6%
18	2010006	rs800344	G/A	G=58.8%, A=41.2%	GG=36.3%, GA=45.0%, AA=18.7%
19	2020475	rs753136	C/T	C=67.9%, T=32.1%	CC=44.6%, CT=46.7%, TT=8.7%

Fig. 8

Table 3: Association of CD81 SNPs with treatment response of HCV patients to interferon- α and ribavirin combined therapy

SNP	Location in CD81 genome	rs #	Nucleotide substitution	Genotype P-value	Allelic P-value	Genotype Odds ratio	Allelic Odds ratio
1	1949368	rs800146	G/A	0.3852			1.32(0.72-2.45)
2	1953512	rs2521240	G/A	0.9473			1.14(0.59-2.22)
3	1958563	rs800158	G/A	0.6607			0.76(0.42-1.40)
4	1963385	rs800163	C/T	0.521			1.29(0.71-2.36)
5	1975622	rs800136	C/T	0.1079	0.0435	0.52(0.21-1.31)	0.54(0.30-0.98)
6	1976158	rs800137	C/T	0.1079	0.0435	0.52(0.21-1.31)	0.54(0.30-0.98)
7	1978278	rs1164688	G/C	0.3676			1.23(0.66-1.27)
8	1982077	rs2651842	G/A	0.1290			0.55(0.31-1.00)
9	1989526	rs800334	G/T	0.0454	0.0119	3.29(1.07-10.12)	2.2(1.19-4.07)
10	1989603	pos1989603	G/A	0.0341	0.0101	3.61(1.08-12.09)	2.25(1.21-4.18)
11	1991149	pos1991149	G/A	1.0			
12	1991241	pos1991241	C/T	0.4615			
13	1991254	rs2522012	G/T	0.0331	0.0131	0.24(0.07-0.79)	0.47(0.26-0.86)
14	1991255	rs2522013	C/A	0.0331	0.0131	4.19(1.27-13.86)	2.12(1.17-3.85)
15	1991294	rs800335	C/T	0.0331	0.0131	0.24(0.07-0.79)	0.47(0.26-0.86)
16	191310	pos191310	I/N	0.2103			0.85(0.12-6.20)
17	2009970	rs800343	G/A	0.8013			0.87(0.48-1.56)
18	2010006	rs800344	G/A	0.9983			1.00(0.55-1.81)
19	2020475	rs753136	C/T	0.2933			1.620

Fig. 9

Table 4: CD81-SNPrs800136 alleles and associated treatment response status

	responder	Non-responder
CD81-SNPrs800136 C allele	46	56
CD81-SNPrs800136 T allele	52	32

$\chi^2 = 4.0764$, P value = 0.0435, OR = 0.54, 95% CI = (0.30, 0.98)

Fig. 10

Table 5: CD81-SNPrs800137 alleles and associated treatment response status

	responder	Non-responder
CD81-SNPrs800137 C allele	46	56
CD81-SNPrs800137 T allele	52	32

$\chi^2 = 4.0764$, P value = 0.0435, OR = 0.54, 95% CI = (0.30, 0.98)

Fig. 11

Table 6: CD81-SNPrs800334 alleles and associated treatment response status

	responder	Non-responder
CD81-SNPrs800334 G allele	52	29
CD81-SNPrs800334 T allele	40	49

$\chi^2 = 6.3310$, P value = 0.0119, OR = 2.2, 95% CI = (1.19, 4.07)

Table 7: CD81-SNPrs800334 genotypes and associated treatment response status

	responder	Non-responder
CD81-SNPrs800334 GG genotype	15	31
CD81-SNPrs800334 GT+TT genotype	5	34

$\chi^2 = 3.29$, P value = 0.0321, OR = 3.29, 95% CI = (1.07, 10.12)

Fig. 12

Table 8: CD81-SNPpos1989603 alleles and associated treatment response status

	responder	Non-responder
CD81-SNP pos1989603 A allele	52	27
CD81-SNP pos1989603 G allele	42	49

$\chi^2 = 6.6182$, P value = 0.0101, OR = 2.25, 95% CI = (1.21, 4.18)

Table 9: CD81-SNPpos1989603 genotypes and associated treatment response status

	responder	Non-responder
CD81-SNP pos1989603 AA genotype	14	31
CD81-SNP pos1989603 AG+GG genotype	4	34

$\chi^2 = 5.1402$, P value = 0.0234, OR = 3.61, 95% CI = (1.08, 12.09)

Fig. 13

Table 10: CD81-SNPrs2522012 alleles and associated treatment response status

	responder	Non-responder
CD81-SNPrs2522012 G allele	45	54
CD81-SNPrs2522012 T allele	53	30

$\chi^2 = 6.1512$, P value = 0.0131, OR = 0.47, 95% CI = (0.26, 0.86)

Table 11: CD81-SNPrs2522012 genotypes and associated treatment response status

	Responder	Non-responder
CD81-SNPrs800334 GG+GT genotype	34	38
CD81-SNPrs800334 TT genotype	15	4

$\chi^2 = 6.0882$, P value = 0.0136, OR = 0.24, 95% CI = (0.07, 0.79)

Fig. 14

Table 12: CD81-SNPrs2522013 alleles and associated treatment response status

	responder	Non-responder
CD81-SNPrs2522012 A allele	53	30
CD81-SNPrs2522012 C allele	45	54

$\chi^2 = 6.1512$, P value = 0.0131, OR = 2.12, 95% CI = (1.17, 3.85)

Table 13: CD81-SNPrs2522013 genotypes and associated treatment response status

	Responder	Non-responder
CD81-SNPrs800334 AA genotype	15	4
CD81-SNPrs800334 AC+CC genotype	34	38

$\chi^2 = 6.0882$, P value = 0.0136, OR = 0.24, 95% CI = (0.07, 0.79)

Fig. 15

Table 14: CD81-SNPrs800335 alleles and associated treatment response status

	responder	Non-responder
CD81-SNPrs2522012 C allele	45	53
CD81-SNPrs2522012 T allele	53	30

$\chi^2 = 6.1512$, P value = 0.0131, OR = 0.47, 95% CI = (0.26, 0.86)

Table 15: CD81-SNPrs800335 genotypes and associated treatment response status

	Responder	Non-responder
CD81-SNPrs800334 CC+CT genotype	34	38
CD81-SNPrs800334 TT genotype	15	4

$\chi^2 = 6.0882$, P value = 0.0136, OR = 0.24, 95% CI = (0.07, 0.79)

Fig. 16

Haplotype Block Information

CD81

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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HAP Map:16 SNPs in 9 HAP Blocks

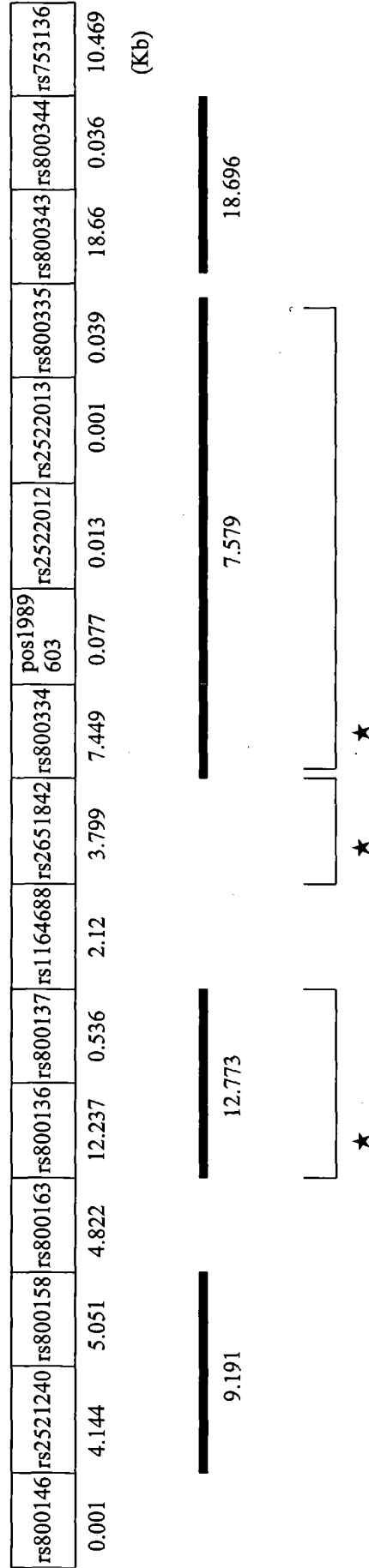


Fig. 17

Table 16: CD81-SNPrs800136 and rs800137 haplotype and associated treatment response status

	Responder	Non-responder
CC haplotype	46	52

$\chi^2=4.0746$, P value = 0.0435, OR = 1.8370

Fig. 18

Table 17: CD81-SNPrs800334, pos1989603, rs2522012, rs2522013, rs800335 haplotypes and associated treatment response status

	Responder	Non-responder
TGGCC haplotype	51	43
GATAT haplotype	30	52

$\chi^2=5.1343$, P value = 0.0235, OR = 1.9767 for TGGCC haplotype
 $\chi^2=5.4980$, P value = 0.0190, OR = 0.4915 for GATAT haplotype

Fig. 19